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APPENDIX IV

DATA FROM NICOTINE BIAS AND PRECISION STUDY

AUTOANALYZER VERSUS GAS CHROMATOGRAPH

2023100216



## BROWN AND WILLIAMSON TOBACCO CORPORATION



NICOTINE BIAS AND PRECISION FOR INDIVIDUAL BRANDS

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BRAND DESCRIPTION	PAD ANALYSIS			FILTER ANALYSIS					
	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION
B&W MENTHOL 100									
BY AA	9	1.086	0.052						
BY GC	9	1.114	0.084						
MEAN BIAS	9	-0.028	0.045						
BARCLAY BOX, PETERSBURG									
BY AA	249	0.192	0.061	267	0.445	0.092	161	73.042	2.684
BY GC	248	0.201	0.077	267	0.5310.129		167	74.856	4.838
MEAN BIAS	242	-0.012	0.031	267	-0.066	0.061	161	-1.765	2.701
BARCLAY MENTHOL 100, LOUISVILLE									
BY AA	115	0.322	0.083	97	0.339	0.043	97	52.439	4.444
BY GC	115	0.325	0.089	97	0.3560.049		97	53.654	5.334
MEAN BIAS	115	-0.003	0.028	97	-0.016	0.033	97	-1.215	2.419
BARCLAY MENTHOL 100, PETERSBURG									
BY AA	104	0.373	0.069	42	0.409	0.044	42	51.499	3.985
BY GC	103	0.417	0.077	34	0.4340.050		33	51.325	4.566
MEAN BIAS	103	-0.044	0.030	34	-0.042	0.028	33	0.426	2.137
BARCLAY MENTHOL, LOUISVILLE									
BY AA	83	0.132	0.074	72	0.288	0.044	70	69.871	4.793
BY GC	84	0.115	0.070	72	0.3120.044		72	74.288	4.399
MEAN BIAS	83	0.017	0.016	72	-0.024	0.026	70	-4.509	2.451
BARCLAY MENTHOL, PETERSBURG									
BY AA	98	0.189	0.047	47	0.383	0.061	44	68.922	3.949
BY GC	96	0.180	0.050	39	0.3860.052		39	70.234	3.476
MEAN BIAS	94	0.007	0.028	39	-0.002	0.040	38	-1.248	2.762
BARCLAY 100, LOUISVILLE									
BY AA	183	0.344	0.071	144	0.355	0.041	143	51.054	3.269
BY GC	179	0.335	0.063	132	0.3580.043		127	52.330	3.927
MEAN BIAS	179	0.009	0.053	132	-0.003	0.039	127	-1.275	2.765
BARCLAY, LOUISVILLE									
BY AA	124	0.161	0.054	89	0.410	0.083	85	72.234	4.264
BY GC	126	0.139	0.053	89	0.4390.084		89	76.872	4.330
MEAN BIAS	122	0.020	0.026	89	-0.049	0.042	85	-4.600	2.613
BARCLAY, PETERSBURG									
BY AA	231	0.175	0.052	142	0.426	0.074	135	72.631	4.172
BY GC	240	0.175	0.063	142	0.4780.102		142	75.378	4.595
MEAN BIAS	231	-0.002	0.029	140	-0.055	0.053	133	-2.590	2.799
B&W - 2									
BY AA	378	0.254	0.077	317	0.593	0.074	302	70.760	4.240
BY GC	383	0.244	0.064	298	0.6430.081		290	73.167	4.309
MEAN BIAS	369	0.008	0.043	298	-0.052	0.065	280	-2.276	2.049
BELAIRE 100, PETERSBURG									
BY AA	39	0.840	0.127	33	0.575	0.045	33	40.786	3.294
BY GC	39	0.825	0.142	33	0.5100.042		33	38.500	3.509
MEAN BIAS	39	0.015	0.049	33	0.064	0.031	33	2.285	1.679
BELAIRE, MADON									
BY AA	16	0.702	0.093	8	0.745	0.027	8	50.993	1.731
BY GC	13	0.749	0.059	8	0.7020.018		5	50.070	1.961
MEAN BIAS	13	-0.040	0.040	8	0.043	0.016	5	1.910	0.732
BELAIRE, PETERSBURG									
BY AA	11	0.743	0.045	11	0.732	0.036	11	49.645	1.916
BY GC	11	0.734	0.062	11	0.7030.040		11	48.968	2.634
MEAN BIAS	11	0.009	0.045	11	0.029	0.032	11	0.677	1.489

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## J &amp; W OWN AND WILLIAMSON TOBACCO CORPORATION



## NICOTINE BIAS AND PRECISION FOR INDIVIDUAL BRANDS

BRAND DESCRIPTION NRE	PAD ANALYSIS			FILTER ANALYSIS						
	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	
BROADWAY 80 ISRAEL	BY AA	8	1.095	0.054	8	0.959	0.039	8	33.773	1.153
	BY GC	8	0.974	0.052	8	0.3770	0.029	8	27.943	1.844
	MEAN BIAS	8	0.123	0.047	8	0.181	0.016	8	5.828	0.902
CAMBRIDGE KS	BY AA	8	0.104	0.047	10	0.434	0.049	6	82.633	4.216
	BY GC	13	0.080	0.031	7	0.4670	0.060	6	86.450	1.319
	MEAN BIAS	8	0.022	0.025	7	-0.020	0.037			
CAMEL FILTER	BY AA	8	1.120	0.101	8	0.701	0.035	8	38.575	1.424
	BY GC	8	1.092	0.075	8	0.6470	0.044	8	37.230	1.711
	MEAN BIAS	8	0.028	0.049	8	0.054	0.024	8	1.345	1.491
CARLTON KS	BY AA	7	0.149	0.018	10	0.432	0.041	7	73.591	2.518
	BY GC	10	0.122	0.020	10	0.4170	0.034	10	77.340	3.073
	MEAN BIAS	7	0.034	0.018	10	0.015	0.031	7	-4.697	3.344
DOUBLE HAPPINESS KS, HONG KONG	BY AA	8	1.849	0.139	8	0.859	0.055	8	31.504	1.196
	BY GC	8	1.841	0.078	8	0.7020	0.059	8	27.607	1.949
	MEAN BIAS	8	0.028	0.084	8	0.156	0.029	8	5.900	1.095
DU MAURIER, LOUISVILLE	BY AA	19	1.022	0.100	12	0.665	0.054	12	39.743	4.153
	BY GC	16	0.977	0.122	12	0.5750	0.080	9	36.641	4.949
	MEAN BIAS	16	0.044	0.045	12	0.090	0.111	9	4.013	0.629
EUROPA 80 ISRAEL	BY AA	8	1.174	0.084	8	0.739	0.044	8	38.642	0.455
	BY GC	8	1.080	0.045	6	0.6100	0.042	6	34.300	1.172
	MEAN BIAS	8	0.094	0.067	6	0.127	0.025	6	2.359	1.351
GOLDEN LIGHTS KS	BY AA	16	0.667	0.043	13	0.952	0.038	13	45.631	1.774
	BY GC	13	0.723	0.107	8	0.5170	0.038	8	42.251	5.471
	MEAN BIAS	13	-0.047	0.111	8	0.054	0.039	8	4.191	4.380
GOLDEN LIGHTS 100	BY AA	16	0.672	0.099	16	0.993	0.091	16	44.861	2.032
	BY GC	12	0.710	0.092	12	0.5420	0.091	11	42.885	3.971
	MEAN BIAS	12	-0.044	0.092	12	0.067	0.033	11	4.787	3.670
KENT DELUXE 100	BY AA	16	1.200	0.115	16	0.994	0.036	16	33.196	1.320
	BY GC	11	1.241	0.166	13	0.5110	0.037	11	29.008	2.439
	MEAN BIAS	11	-0.044	0.079	13	0.090	0.020	11	4.499	1.440
KENT GOLDEN LIGHTS KS, PETERSBURG	BY AA	41	0.955	0.084	37	0.902	0.046	37	47.278	2.616
	BY GC	41	0.940	0.096	34	0.4830	0.049	34	47.764	3.044
	MEAN BIAS	41	0.015	0.037	34	0.019	0.026	34	-0.184	1.423
KENT GOLDEN LIGHTS 100, PETERSBURG	BY AA	18	0.748	0.045	18	0.678	0.041	18	47.577	2.117
	BY GC	17	0.718	0.081	18	0.6460	0.035	17	47.423	2.545
	MEAN BIAS	17	0.026	0.034	18	0.032	0.015	17	0.243	1.363
KENT GOLDEN LIGHTS 80, FINLAND	BY AA	5	0.710	0.069	5	0.476	0.035	5	40.182	2.359
	BY GC	5	0.834	0.072						
	MEAN BIAS	5	-0.124	0.120						

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## BROWN AND WILLIAMSON TOBACCO CORPORATION



## NICOTINE BIAS AND PRECISION FOR INDIVIDUAL BRANDS

B	DESCRIPTION NRE	PAD ANALYSIS			FILTER ANALYSIS			NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION
		NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION			
KENT GOLDEN LIGHTS 80, PETERSBURG	BY AA	16	0.693	0.118	14	0.650	0.052	14	48.768	3.299
	BY GC	16	0.657	0.119	14	0.6180.069		14	49.063	3.982
	MEAN BIAS	16	0.036	0.042	14	0.032	0.042	14	-0.294	1.885
KENT III KS	BY AA	16	0.276	0.032	13	0.495	0.044	13	64.163	2.381
	BY GC	16	0.244	0.021	13	0.5050.032		13	67.630	2.304
	MEAN BIAS	16	0.032	0.031	13	-0.010	0.029	13	-3.468	2.775
KENT KS, AUSTRALIA	BY AA	13	1.158	0.057	11	0.707	0.027	11	37.903	1.568
	BY GC	13	1.070	0.062	11	0.5530.093		11	39.159	3.684
	MEAN BIAS	13	0.088	0.044	11	0.155	0.080	11	3.745	2.553
KENT KS, PETERSBURG	BY AA	23	0.963	0.082	19	0.657	0.029	19	40.734	2.159
	BY GC	23	0.958	0.098	16	0.5790.057		16	38.595	1.524
	MEAN BIAS	23	0.005	0.063	16	0.077	0.048	16	2.577	1.675
KENT MIC. II 100, PETERSBURG	BY AA	5	1.146	0.050	5	0.638	0.062	5	35.722	2.363
	BY GC	5	1.102	0.046	5	0.5100.021		5	31.645	1.085
	MEAN BIAS	5	0.044	0.043	5	0.128	0.052	5	4.076	1.491
KENT MIC. II, PETERSBURG	BY AA	5	0.986	0.099						
	BY GC	5	1.012	0.075						
	MEAN BIAS	5	-0.026	0.040						
KENT MIC. 100, PETERSBURG	BY AA	5	1.120	0.031						
	BY GC	5	1.204	0.113						
	MEAN BIAS	5	-0.084	0.111						
KENT MICRONITE II KS	BY AA	16	0.973	0.076	13	0.615	0.035	13	38.676	1.360
	BY GC	16	0.964	0.078	13	0.5280.048		13	35.182	2.347
	MEAN BIAS	16	0.009	0.034	13	0.088	0.043	13	3.494	1.442
KENT 80, AUSTRALIA	BY AA	5	1.006	0.194						
	BY GC	5	0.844	0.202						
	MEAN BIAS	5	0.142	0.104						
KENT 80, AUSTRIA	BY AA	24	1.114	0.201	12	0.651	0.054	12	39.143	1.026
	BY GC	24	1.045	0.192	12	0.5600.045		12	34.734	1.646
	MEAN BIAS	24	0.068	0.048	12	0.091	0.046	12	2.409	1.297
KENT 80, FINLAND	BY AA	5	0.974	0.237	5	0.548	0.131	5	36.053	1.977
	BY GC	5	1.036	0.213						
	MEAN BIAS	5	-0.062	0.101						
KOOL BOX 1/4-1/14 4XET, PETERSBURG	BY AA	8	1.181	0.070	8	0.677	0.051	8	36.439	1.703
	BY GC	8	1.144	0.029	8	0.5490.045		8	33.129	1.714
	MEAN BIAS	8	0.035	0.070	8	0.109	0.032	8	3.310	0.894
KOOL BOX 1/4-1/8 DET, PETERSBURG	BY AA	5	1.308	0.096						
	BY GC	5	1.100	0.094						
	MEAN BIAS	5	0.208	0.019						
KOOL BOX 4XET, PETERSBURG										

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## BARNES AND WILLIAMSON TOBACCO CORPORATION



## NICOTINE BIAS AND PRECISION FOR INDIVIDUAL BRANDS

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BRAND DESCRIPTION BRI	PAD ANALYSIS			FILTER ANALYSIS					
	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION
BY AA	99	1.209	0.196	76	0.733	0.091	75	38.926	5.652
BY GC	99	1.155	0.190	72	0.6040.076		71	35.820	6.491
MEAN BIAS	99	0.054	0.054	72	0.131	0.069	71	3.213	2.571
KOOL KING STET, MACON									
BY AA	80	1.151	0.202	64	0.673	0.090	64	37.860	4.474
BY GC	80	1.109	0.196	61	0.5360.074		61	33.695	5.200
MEAN BIAS	80	0.042	0.047	61	0.138	0.050	61	4.298	1.905
KOOL KINGS 45ET, MACON									
BY AA	8	1.116	0.103	8	0.655	0.087	8	36.937	2.642
BY GC	8	1.126	0.095	8	0.6020.054		8	34.914	3.528
MEAN BIAS	8	-0.010	0.079	8	0.052	0.062	8	2.023	1.554
KOOL KS, PANAMA									
BY AA	8	1.152	0.058	8	0.604	0.035	8	34.371	0.616
BY GC	8	1.129	0.071	8	0.4970.035		8	30.600	1.533
MEAN BIAS	8	0.024	0.027	8	0.106	0.037	8	3.771	1.637
KOOL KS, PHILLIPINES									
BY AA	6	1.467	0.093						
BY GC	6	1.275	0.112						
MEAN BIAS	6	0.192	0.134						
KOOL LIGHT 100 65H1, MACON									
BY AA	16	0.960	0.079	16	0.708	0.037	16	42.518	2.681
BY GC	16	1.045	0.092	8	0.7490.030		8	42.523	1.508
MEAN BIAS	16	-0.109	0.027	8	-0.024	0.016	8	1.658	0.514
KOOL LIGHT 100 95H1, MACON									
BY AA	72	0.895	0.088	72	0.710	0.047	72	44.310	2.068
BY GC	72	0.921	0.090	60	0.6460.062		60	41.874	2.034
MEAN BIAS	72	-0.026	0.083	60	0.050	0.054	60	2.501	2.254
KOOL LIGHT 100, PETERSBURG									
BY AA	99	0.812	0.121	79	0.670	0.074	79	45.360	3.535
BY GC	96	0.796	0.127	77	0.6380.067		74	44.877	3.388
MEAN BIAS	96	0.015	0.066	77	0.031	0.048	74	0.425	2.340
KOOL LIGHT, PETERSBURG									
BY AA	34	0.726	0.080	29	0.792	0.065	29	52.087	2.009
BY GC	31	0.711	0.074	29	0.7590.065		26	51.590	3.594
MEAN BIAS	31	0.012	0.038	29	0.033	0.075	26	0.718	2.379
KOOL MILD 100, LOUISVILLE									
BY AA	63	0.904	0.100	53	0.629	0.070	50	40.922	2.700
BY GC	63	0.917	0.120	43	0.5470.056		40	38.716	3.098
MEAN BIAS	63	-0.013	0.085	43	0.083	0.043	40	2.589	1.387
KOOL MILD, MACON									
BY AA	42	0.848	0.145	35	0.766	0.085	34	46.784	2.761
BY GC	38	0.812	0.120	34	0.6720.084		29	44.578	3.534
MEAN BIAS	38	0.018	0.070	34	0.096	0.063	29	2.389	2.078
KOOL MILD, PETERSBURG									
BY AA	29	0.923	0.089	18	0.752	0.069	18	44.781	3.595
BY GC	29	0.903	0.095	18	0.6440.061		18	42.040	2.998
MEAN BIAS	29	0.020	0.041	18	0.107	0.054	18	2.741	2.179
KOOL REGULAR, LOUISVILLE									
BY AA	15	1.163	0.095						
BY GC	15	1.076	0.114						
MEAN BIAS	15	0.087	0.104						
KOOL SUPER LIGHT KS, FINLAND									
BY AA	8	0.680	0.116						

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## BROWN AND WILLIAMSON TOBACCO CORPORATION



## NICOTINE BIAS AND PRECISION FOR INDIVIDUAL BRANDS

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BY DESCRIPTION NRE	PAD ANALYSIS			FILTER ANALYSIS					
	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION
	BY GC	0.645	0.125						
	MEAN BIAS	0.025	0.036						
KOOL SUPERLIGHTS 100, PETERSBURG									
BY AA	5	0.814	0.038	5	0.542	0.037	5	40.828	1.242
BY GC	5	0.798	0.043	5	0.5220.018		5	39.544	0.889
MEAN BIAS	5	0.016	0.011	5	0.040	0.020	5	1.264	0.968
KOOL ULTRA 100, LOUISVILLE									
BY AA	83	0.503	0.085	59	0.451	0.060	59	47.183	4.248
BY GC	74	0.539	0.089	47	0.4430.061		38	45.375	3.571
MEAN BIAS	74	-0.048	0.062	47	-0.020	0.041	38	0.866	1.903
KOOL ULTRA, LOUISVILLE									
BY AA	73	0.210	0.046	47	0.368	0.107	47	62.970	5.038
BY GC	68	0.215	0.049	35	0.3740.061		30	65.083	4.274
MEAN BIAS	68	-0.007	0.034	35	-0.031	0.037	30	-2.158	2.359
KOOL 100, MACON									
BY AA	12	1.033	0.102	10	0.711	0.038	10	39.873	1.116
BY GC	10	0.975	0.094	10	0.5870.039		8	34.754	1.647
MEAN BIAS	10	0.044	0.051	10	0.126	0.041	8	3.005	1.629
KOOL 100, PETERSBURG									
BY AA	8	1.012	0.057						
BY GC	8	1.005	0.072						
MEAN BIAS	8	0.007	0.028						
KOOL 100, PHILLIPINES									
BY AA	5	1.626	0.160						
BY GC	5	1.472	0.218						
MEAN BIAS	5	0.154	0.145						
KOOL, MACON									
BY AA	10	1.264	0.103	10	0.747	0.067	10	37.140	1.579
BY GC	7	1.167	0.078	10	0.6210.072		7	33.460	2.202
MEAN BIAS	7	0.070	0.031	10	0.126	0.020	7	3.191	1.088
KSL - 3									
BY AA	410	0.547	0.075	301	0.642	0.056	300	53.812	2.991
BY GC	395	0.548	0.083	283	0.5790.071		272	51.593	4.488
MEAN BIAS	395	-0.002	0.066	283	0.065	0.063	272	2.246	3.757
LAN KS									
BY AA	16	1.044	0.111	15	0.581	0.054	15	35.551	2.112
BY GC	15	1.022	0.122	15	0.4750.052		15	31.815	2.658
MEAN BIAS	15	0.034	0.102	15	0.106	0.049	15	3.736	1.372
LAN LIGHTS KS									
BY AA	20	0.908	0.129	16	0.794	0.057	16	44.975	3.806
BY GC	20	0.895	0.150	16	0.7160.083		16	44.765	3.829
MEAN BIAS	20	0.013	0.043	16	0.078	0.062	16	2.210	2.034
LARK MILDS									
BY AA	8	0.854	0.057						
BY GC	8	0.840	0.067	8	0.1600.019		8	15.997	1.377
MEAN BIAS	8	0.016	0.029						
LUCKY STRIKE 80, PETERSBURG									
BY AA	5	1.318	0.112						
BY GC	5	1.298	0.071						
MEAN BIAS	5	0.020	0.042						
LUCKY STRIKE, RED STRIPE, PET.									
BY AA	24	1.164	0.071	19	0.741	0.067	19	38.949	1.954
BY GC	24	1.110	0.080	16	0.6330.042		16	37.052	1.942

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# BROWN AND WILLIAMSON TOBACCO CORPORATION



MICROTINE BIAS AND PRECISION FOR INDIVIDUAL BRANDS

BRAND DESCRIPTION			PAD ANALYSIS			FILTER ANALYSIS		
NRT			NUMBER OF MEAN STANDARD			NUMBER OF MEAN STANDARD		
RESULTS			RESULTS			RESULTS		
DEVIATION			DEVIATION			DEVIATION		
MEAN			MEAN			MEAN		
STANDARD			STANDARD			STANDARD		
1.388			1.769			2.375		
2.889			2.889			2.375		
2.133			2.133			2.133		
MARLBORO BOX			MARLBORO BOX			MARLBORO BOX		
BY AA			BY AA			BY AA		
BY CC			BY CC			BY CC		
MEAN BIAS			MEAN BIAS			MEAN BIAS		
1.132 0.056			1.132 0.056			1.132 0.056		
1.099 0.054			1.099 0.054			1.099 0.054		
0.032 0.025			0.032 0.025			0.032 0.025		
MARLBORO KS			MARLBORO KS			MARLBORO KS		
BY AA			BY AA			BY AA		
BY CC			BY CC			BY CC		
MEAN BIAS			MEAN BIAS			MEAN BIAS		
1.264 0.161			1.264 0.161			1.264 0.161		
0.784 0.064			0.784 0.064			0.784 0.064		
0.158 0.033			0.158 0.033			0.158 0.033		
MARLBORO LIGHTS KS, HONG KONG			MARLBORO LIGHTS KS, HONG KONG			MARLBORO LIGHTS KS, HONG KONG		
BY AA			BY AA			BY AA		
BY CC			BY CC			BY CC		
MEAN BIAS			MEAN BIAS			MEAN BIAS		
1.280 0.101			1.280 0.101			1.280 0.101		
1.129 0.206			1.129 0.206			1.129 0.206		
0.135 0.125			0.135 0.125			0.135 0.125		
MARLBORO LIGHTS KS, SAUDI ARABIA			MARLBORO LIGHTS KS, SAUDI ARABIA			MARLBORO LIGHTS KS, SAUDI ARABIA		
BY AA			BY AA			BY AA		
BY CC			BY CC			BY CC		
MEAN BIAS			MEAN BIAS			MEAN BIAS		
0.742 0.084			0.742 0.084			0.742 0.084		
0.714 0.077			0.714 0.077			0.714 0.077		
0.029 0.033			0.029 0.033			0.029 0.033		
MARLBORO SO ISRAEL			MARLBORO SO ISRAEL			MARLBORO SO ISRAEL		
BY AA			BY AA			BY AA		
BY CC			BY CC			BY CC		
MEAN BIAS			MEAN BIAS			MEAN BIAS		
1.196 0.080			1.196 0.080			1.196 0.080		
1.119 0.072			1.119 0.072			1.119 0.072		
0.078 0.047			0.078 0.047			0.078 0.047		
MERIT KS			MERIT KS			MERIT KS		
BY AA			BY AA			BY AA		
BY CC			BY CC			BY CC		
MEAN BIAS			MEAN BIAS			MEAN BIAS		
0.641 0.061			0.641 0.061			0.641 0.061		
0.601 0.045			0.601 0.045			0.601 0.045		
0.039 0.022			0.039 0.022			0.039 0.022		
MERIT KS, HONG KONG			MERIT KS, HONG KONG			MERIT KS, HONG KONG		
BY AA			BY AA			BY AA		
BY CC			BY CC			BY CC		
MEAN BIAS			MEAN BIAS			MEAN BIAS		
0.632 0.027			0.632 0.027			0.632 0.027		
0.545 0.048			0.545 0.048			0.545 0.048		
0.047 0.033			0.047 0.033			0.047 0.033		
MERIT ULTRA KS			MERIT ULTRA KS			MERIT ULTRA KS		
BY AA			BY AA			BY AA		
BY CC			BY CC			BY CC		
MEAN BIAS			MEAN BIAS			MEAN BIAS		
0.322 0.026			0.322 0.026			0.322 0.026		
0.320 0.031			0.320 0.031			0.320 0.031		
0.012 0.028			0.012 0.028			0.012 0.028		
MERIT SO, SAUDI ARABIA			MERIT SO, SAUDI ARABIA			MERIT SO, SAUDI ARABIA		
BY AA			BY AA			BY AA		
BY CC			BY CC			BY CC		
MEAN BIAS			MEAN BIAS			MEAN BIAS		
0.776 0.042			0.776 0.042			0.776 0.042		
0.744 0.046			0.744 0.046			0.744 0.046		
0.039 0.029			0.039 0.029			0.039 0.029		
WILD SEVEN			WILD SEVEN			WILD SEVEN		
BY AA			BY AA			BY AA		
BY CC			BY CC			BY CC		
MEAN BIAS			MEAN BIAS			MEAN BIAS		
1.247 0.085			1.247 0.085			1.247 0.085		
1.190 0.074			1.190 0.074			1.190 0.074		
0.057 0.040			0.057 0.040			0.057 0.040		
MILL 2 VENT			MILL 2 VENT			MILL 2 VENT		
BY AA			BY AA			BY AA		
BY CC			BY CC			BY CC		
MEAN BIAS			MEAN BIAS			MEAN BIAS		
0.829 0.022			0.829 0.022			0.829 0.022		
0.821 0.020			0.821 0.020			0.821 0.020		
0.007 0.017			0.007 0.017			0.007 0.017		
NEWPORT KS			NEWPORT KS			NEWPORT KS		
BY AA			BY AA			BY AA		
BY CC			BY CC			BY CC		
MEAN BIAS			MEAN BIAS			MEAN BIAS		
1.293 0.100			1.293 0.100			1.293 0.100		
1.217 0.072			1.217 0.072			1.217 0.072		
0.077 0.079			0.077 0.079			0.077 0.079		
NEWPORT LIGHTS KS			NEWPORT LIGHTS KS			NEWPORT LIGHTS KS		
BY AA			BY AA			BY AA		
BY CC			BY CC			BY CC		
MEAN BIAS			MEAN BIAS			MEAN BIAS		
0.749 0.084			0.749 0.084			0.749 0.084		
0.700 0.096			0.700 0.096			0.700 0.096		
0.049 0.024			0.049 0.024			0.049 0.024		

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## BROWN AND WILLIAMSON TOBACCO CORPORATION



NICOTINE BIAS AND PRECISION FOR INDIVIDUAL BRANDS

BY DESCRIPTION BRI	PAD ANALYSIS			FILTER ANALYSIS						
	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	
WENPORT 80, FINLAND	BY AA	8	1.344	0.035	8	0.711	0.037	8	38.377	1.002
	BY CC	8	1.057	0.039	8	0.5870.047		8	35.678	1.993
	MEAN BIAS	8	0.089	0.017	8	0.124	0.028	8	2.600	0.874
WOM KS	BY AA	13	0.181	0.035	15	0.348	0.030	12	67.245	3.343
	BY CC	16	0.151	0.033	15	0.3570.033		15	70.941	4.234
	MEAN BIAS	13	0.037	0.032	15	0.011	0.023	12	-4.598	4.081
WOM 100	BY AA	14	0.234	0.060	13	0.355	0.034	12	60.385	4.451
	BY CC	14	0.223	0.053	13	0.3750.022		10	62.500	3.004
	MEAN BIAS	14	0.007	0.019	13	-0.019	0.024	10	-0.882	2.246
PALL MALL EXT LT	BY AA	8	0.729	0.042	8	0.749	0.025	8	50.700	1.766
	BY CC	8	0.701	0.041	8	0.6600.030		8	48.500	1.475
	MEAN BIAS	8	0.027	0.027	8	0.089	0.021	8	2.200	0.876
PALL MALL EXTRA LIGHTS KS	BY AA	10	0.631	0.055	8	0.746	0.067	8	54.386	1.675
	BY CC	10	0.561	0.038	8	0.6220.065		8	52.584	1.924
	MEAN BIAS	10	0.070	0.046	8	0.124	0.053	8	1.803	1.329
RALEIGH LIGHTS, PETERSBURG	BY AA	25	0.767	0.097	22	0.766	0.074	22	50.122	2.150
	BY CC	25	0.722	0.095	22	0.6850.073		22	48.927	2.648
	MEAN BIAS	25	0.045	0.036	22	0.080	0.049	22	1.204	1.802
P. ON LONG LIGHTS, PETERSBURG	BY AA	14	0.736	0.119	8	0.764	0.031	8	50.491	0.345
	BY CC	14	0.696	0.110	8	0.6990.029		8	50.452	1.837
	MEAN BIAS	14	0.040	0.040	8	0.065	0.035	8	-0.001	1.605
RALEIGH PLAIN, LOUISVILLE	BY AA	15	1.429	0.077						
	BY CC	12	1.324	0.122						
	MEAN BIAS	12	0.118	0.087						
RALEIGH 100, PETERSBURG	BY AA	11	1.212	0.110	9	0.787	0.082	9	39.192	0.922
	BY CC	11	1.130	0.083	9	0.6290.045		9	35.963	1.495
	MEAN BIAS	11	0.082	0.080	9	0.158	0.053	9	3.229	1.413
RALEIGH, PETERSBURG	BY AA	11	1.055	0.078	9	0.686	0.055	9	39.532	1.360
	BY CC	11	0.975	0.049	9	0.5470.039		9	36.122	2.111
	MEAN BIAS	11	0.079	0.069	9	0.139	0.053	9	3.410	2.107
SALEM KS	BY AA	21	1.115	0.094	15	0.723	0.061	15	39.271	1.461
	BY CC	21	1.065	0.121	15	0.5720.067		15	34.972	2.892
	MEAN BIAS	21	0.050	0.091	15	0.151	0.050	15	4.299	2.332
SALEM LIGHTS KS	BY AA	16	0.636	0.059	16	0.684	0.051	16	51.878	2.018
	BY CC	16	0.611	0.045	16	0.6180.037		16	50.300	1.972
	MEAN BIAS	16	0.024	0.063	16	0.066	0.033	16	1.579	1.935
TAREYTON KS	BY AA	22	1.035	0.059	12	0.186	0.022	12	15.011	1.320
	BY CC	22	1.030	0.125	18	0.1510.014		18	13.072	1.472
	MEAN BIAS	22	0.005	0.103	10	0.038	0.015	10	2.533	1.325

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## NICOTINE BIAS AND PRECISION FOR INDIVIDUAL BRANDS

BRAND DESCRIPTION NRE	PAD ANALYSIS			FILTER ANALYSIS						
	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	
TIME 80, ISRAEL	BY AA	8	1.160	0.037	8	0.640	0.031	8	36.263	1.426
	BY GC	8	1.039	0.045	8	0.5020.038		8	32.636	1.883
	MEAN BIAS	8	0.121	0.044	8	0.160	0.028	8	3.480	0.693
TRIUMPH KS	BY AA	8	0.292	0.033	8	0.577	0.035	8	64.448	1.958
	BY GC	8	0.291	0.026	8	0.5950.030		8	67.172	1.707
	MEAN BIAS	8	0.001	0.022	8	-0.017	0.036	8	-0.724	1.697
TRUE KS	BY AA	14	0.459	0.039	12	0.472	0.031	12	51.272	1.816
	BY GC	14	0.454	0.037	12	0.4370.046		12	49.413	2.264
	MEAN BIAS	14	0.006	0.026	12	0.036	0.028	12	1.859	1.854
TRUE KS, PETERSBURG	BY AA	21	0.585	0.050	19	0.588	0.038	19	50.575	2.377
	BY GC	21	0.610	0.079	16	0.5810.065		16	50.123	2.372
	MEAN BIAS	21	-0.026	0.054	16	0.009	0.058	16	0.951	1.206
TRUE 100	BY AA	8	0.559	0.039	8	0.567	0.029	8	50.414	1.412
	BY GC	8	0.574	0.036	8	0.5320.024		8	48.159	1.698
	MEAN BIAS	8	-0.015	0.024	8	0.035	0.035	8	2.255	1.028
VANTAGE KS	BY AA	24	0.692	0.048	24	0.897	0.045	24	56.725	2.048
	BY GC	29	0.679	0.055	24	0.8480.109		21	55.323	2.440
	MEAN BIAS	29	0.020	0.039	24	0.049	0.110	21	1.452	1.653
VANTAGE MENTHOL KS	BY AA	10	0.680	0.039						
	BY GC	10	0.688	0.105						
	MEAN BIAS	10	-0.008	0.088						
VICEROY KS, GUATEMALA	BY AA	6	0.860	0.069	6	0.442	0.028	6	32.969	1.800
	BY GC	6	0.733	0.085	6	0.2970.033		6	28.836	1.951
	MEAN BIAS	6	0.127	0.027	6	0.145	0.008	6	5.133	0.274
VICEROY KS, HAITI	BY AA	6	1.038	0.066	6	0.625	0.045	6	37.568	1.183
	BY GC	6	0.902	0.053	6	0.4330.047		6	32.417	2.340
	MEAN BIAS	6	0.137	0.074	6	0.192	0.084	6	5.151	2.142
VICEROY KS, PANAMA	BY AA	8	1.250	0.077	8	0.685	0.064	8	35.347	3.191
	BY GC	8	1.209	0.069	8	0.5340.027		8	30.650	1.190
	MEAN BIAS	8	0.041	0.034	8	0.151	0.067	8	4.697	2.569
VICEROY LIGHTS, PETERSBURG	BY AA	8	0.599	0.075	8	0.587	0.058	8	49.583	1.856
	BY GC	8	0.607	0.083	8	0.5300.027		8	46.763	2.843
	MEAN BIAS	8	-0.009	0.045	8	0.058	0.036	8	2.820	2.402
VICEROY LONG LIGHTS, PETERSBURG	BY AA	8	0.654	0.039	8	0.699	0.049	8	51.648	1.487
	BY GC	8	0.655	0.051	8	0.5970.051		8	47.694	2.720
	MEAN BIAS	8	-0.001	0.036	8	0.101	0.026	8	3.953	2.336
VICEROY HIGH LIGHTS 100, PETERSBURG	BY AA	30	0.801	0.195	30	0.795	0.110	30	48.745	4.478
	BY GC	30	0.787	0.144	30	0.6980.110		30	47.144	4.630
	MEAN BIAS	30	0.014	0.095	30	0.057	0.045	30	1.601	1.731

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## BROWI AND WILLIAMSON TOBACCO CORPORATION



## NICOTINE BIAS AND PRECISION FOR INDIVIDUAL BRANDS

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B. DESCRIPTION NRE	PAD ANALYSIS			FILTER ANALYSIS					
	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION	NUMBER OF RESULTS	MEAN RESULT	STANDARD DEVIATION
VICEROY RICH LIGHTS, JAPAN									
BY AA	37	1.011	0.085	21	0.250	0.017	21	20.166	1.628
BY GC	36	0.974	0.090	21	0.2270.022		20	19.235	2.149
MEAN BIAS	36	0.038	0.056	21	0.024	0.018	20	0.897	1.094
VICEROY RICH LIGHTS, PETERSBURG									
BY AA	16	0.685	0.090	13	0.710	0.067	13	50.710	2.073
BY GC	16	0.678	0.095	13	0.6350.058		13	48.377	3.232
MEAN BIAS	16	0.007	0.051	13	0.075	0.048	13	2.333	1.692
VICEROY 100, LOUISVILLE									
BY AA	16	1.152	0.112	15	0.757	0.082	13	39.531	2.014
BY GC	16	1.083	0.102	15	0.6100.080		13	35.837	2.448
MEAN BIAS	16	0.069	0.049	15	0.147	0.037	13	3.694	0.871
VICEROY 100, PETERSBURG									
BY AA	10	1.114	0.104	5	0.628	0.064	5	38.805	0.983
BY GC	10	1.085	0.112	5	0.5700.034		5	36.044	1.155
MEAN BIAS	10	0.029	0.076	5	0.118	0.038	5	2.761	0.655
VICEROY 70, GUATEMALA									
BY AA	8	1.035	0.092	8	0.362	0.026	8	25.978	1.295
BY GC	8	0.855	0.102	8	0.2320.028		8	21.405	1.445
MEAN BIAS	8	0.180	0.024	8	0.130	0.009	8	4.573	0.612
VICEROY, PETERSBURG									
BY AA	19	1.131	0.128	12	0.675	0.073	12	38.468	2.853
BY GC	19	1.076	0.134	12	0.5710.053		12	35.831	2.995
MEAN BIAS	19	0.055	0.045	12	0.104	0.026	12	2.637	0.894
WINSTON KS									
BY AA	16	1.026	0.140	13	0.825	0.162	13	44.056	2.506
BY GC	16	0.943	0.133	13	0.6850.146		13	41.708	2.697
MEAN BIAS	16	0.083	0.049	13	0.140	0.055	13	2.348	1.538
WINSTON KS, HONG KONG									
BY AA	8	1.425	0.084	8	0.839	0.145	8	36.810	4.268
BY GC	8	1.327	0.093	8	0.6350.124		8	32.075	4.172
MEAN BIAS	8	0.098	0.034	8	0.204	0.026	8	4.736	0.670
WINSTON LIGHTS KS, HONG KONG									
BY AA	6	0.862	0.026	6	0.755	0.031	6	46.694	0.747
BY GC	6	0.777	0.044	6	0.6000.044		6	43.565	0.829
MEAN BIAS	6	0.085	0.030	6	0.155	0.036	6	3.129	0.925
WINSTON LIGHTS 80, SALDI ARABIA									
BY AA	8	0.891	0.059	8	0.864	0.037	8	49.244	1.358
BY GC	8	0.836	0.041	8	0.7160.059		8	46.093	2.143
MEAN BIAS	8	0.055	0.054	8	0.147	0.049	8	3.151	1.140
WINSTON ULTRA LIGHT KS									
BY AA	8	0.427	0.079	5	0.570	0.023	5	57.104	4.261
BY GC	8	0.425	0.072	5	0.5300.049		5	55.434	5.548
MEAN BIAS	8	0.003	0.014	5	0.040	0.061	5	1.669	3.386
WINSTON 100									
BY AA	16	1.091	0.064	16	0.793	0.038	16	42.109	1.308
BY GC	16	1.045	0.060	16	0.6810.080		16	39.390	3.260
MEAN BIAS	16	0.046	0.049	16	0.112	0.065	16	2.719	2.954

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